Sept. 20, 1960 R. W. SITLER 2,953,011

LATCHING MECHANISM FOR LUGGAGE LOCKER

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Fig. 1

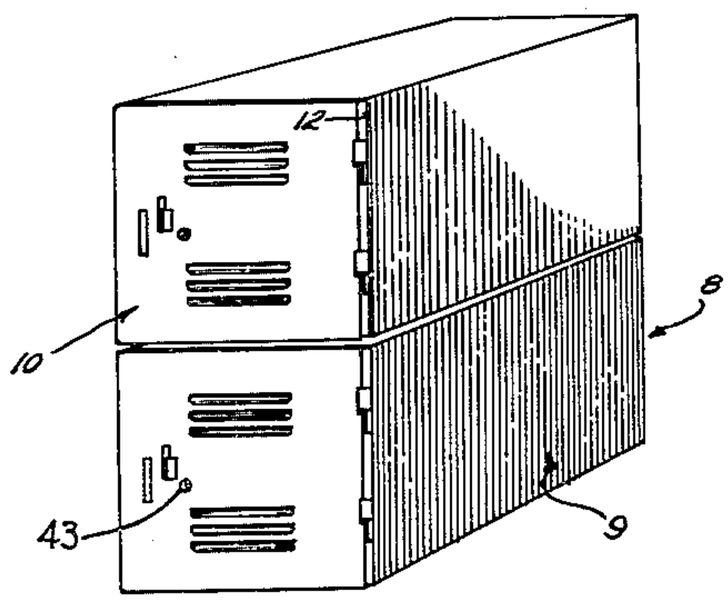

Fig. 2

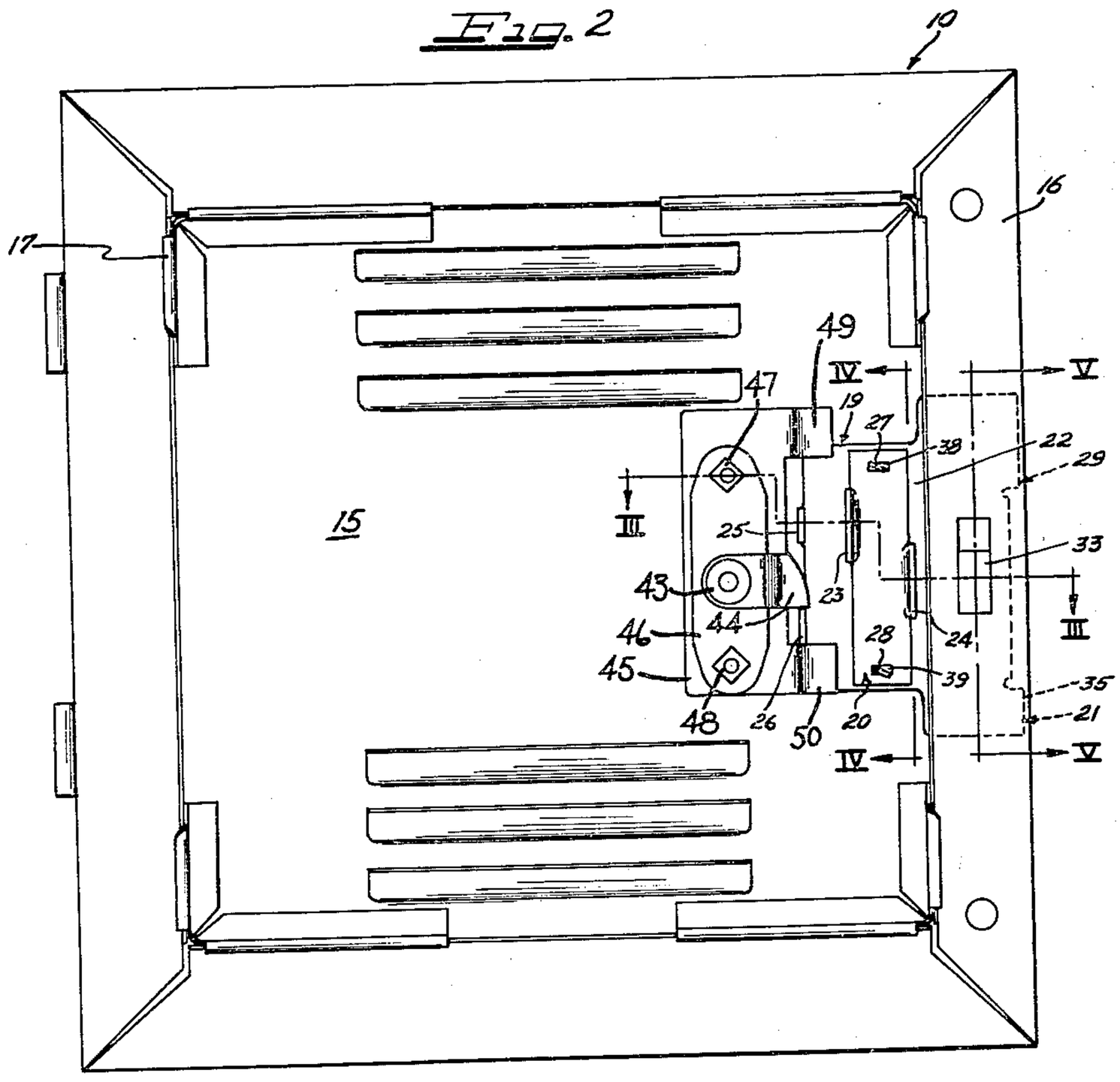

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Fig. 3

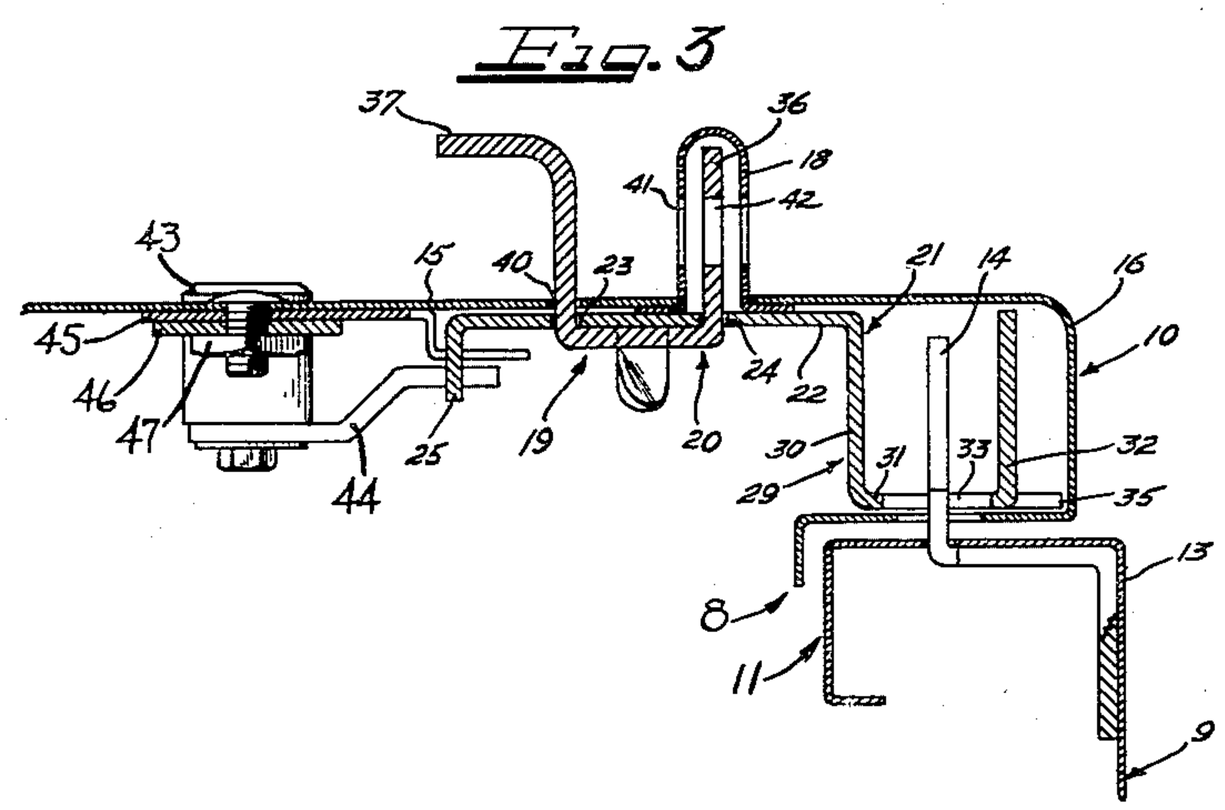


Fig. 4

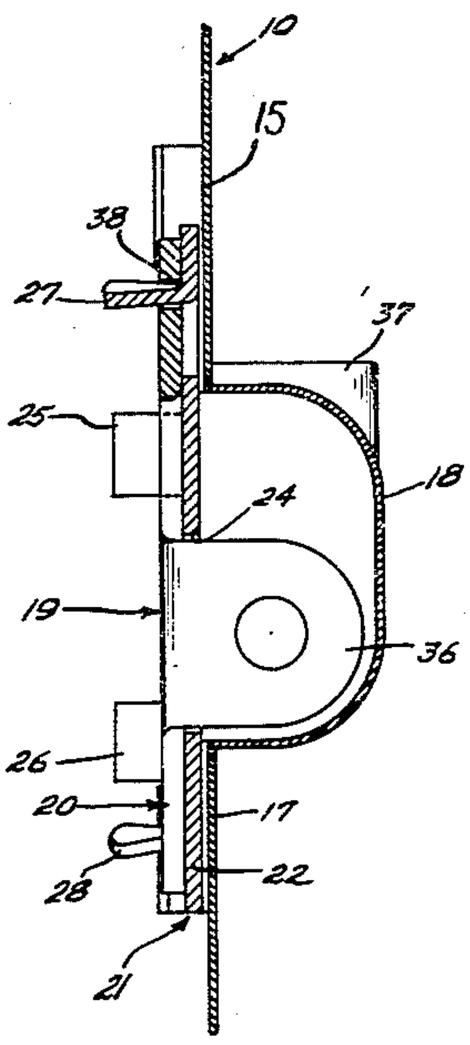
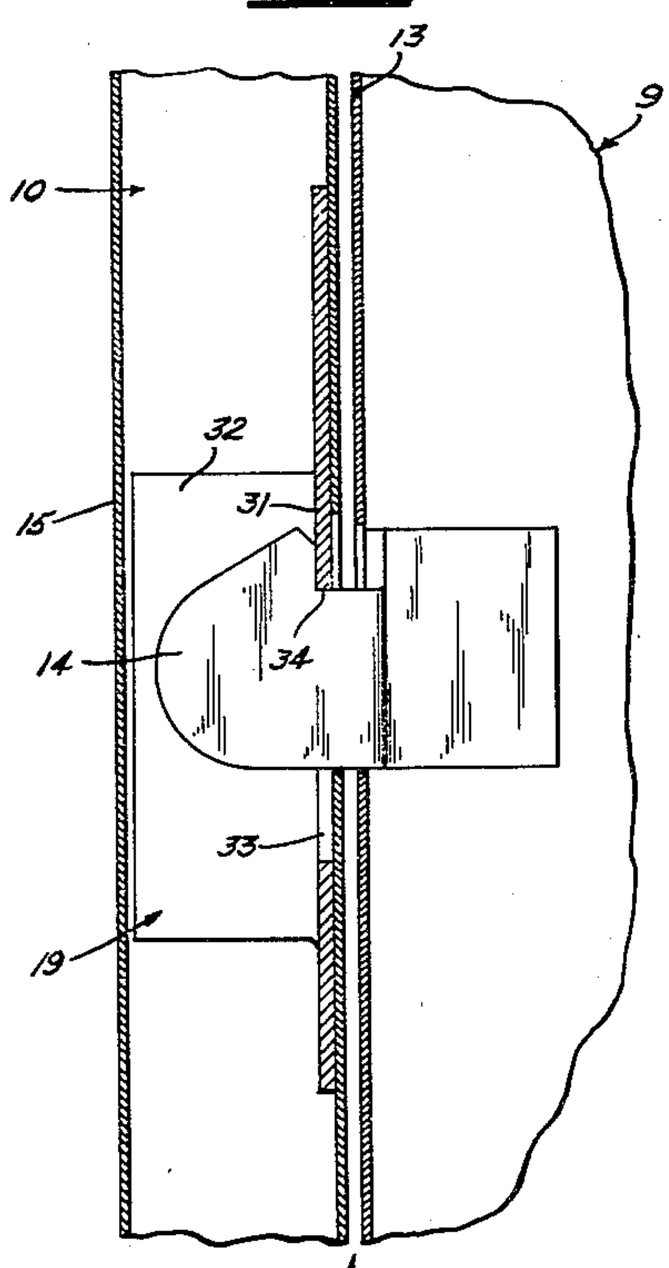


Fig. 5



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LATCHING MECHANISM FOR LUGGAGE LOCKER

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17 Claims. (Cl. 70—80)

This invention relates to a locker door construction and more particularly to a latch assembly mounted on the door for cooperation with a locker cabinet.

The door of the present invention is of the type that has an underturned margin with a latch therein. The underturned margin is adapted to confront a corresponding margin provided on the door for latching cooperation with a door keeper.

The present door construction is particularly constructed for use with a relatively small foot locker which lends itself to being stacked in tiers.

Accordingly, an object of this invention is to provide a new and improved foot locker door construction of the overlapping type having novel latching means.

A further object of this invention is to provide a foot locker door construction which is of a sturdy durable nature capable of resisting wrongful entry by trespassers.

A still further object of this invention is to provide a foot locker door construction which lends itself to economical manufacture on a large production basis.

Another object of this invention is to provide a novel locker door construction which is in assembly capable of being locked either by a padlock or a keylock mounted in the locker door.

Other objects and features of the invention may more fully appear from the following detailed description taken in connection with the accompanying drawings which illustrates an embodiment thereof and in which:

Figure 1 is a perspective view of my novel foot locker door construction showing how it is assembled with the locker cabinet and stacked in tiers;

Figure 2 is an enlarged rear elevational view of my novel locker showing the latching mechanism in detail;

Figure 3 is an enlarged fragmentary view taken substantially on the line III—III of Figure 2 looking in the direction indicated by the arrows;

Figure 4 is an enlarged fragmentary cross sectional view taken on the line IV—IV of Figure 2 looking in the direction indicated by the arrows; and

Figure 5 is an enlarged fragmentary cross sectional view taken on the line V—V of Figure 2 looking in the direction indicated by the arrows.

As shown on the drawings:

The reference numeral **8** indicates generally a foot locker of the type adapted to be stacked in tiers. The locker **8** includes a locker cabinet **9** having hinged thereon my novel locker door construction **10** embodying features of this invention.

The locker cabinet **9** is provided with a stepped margin **11** around the opening defined by the walls of the cabinet. On the vertical margin **12**, the door is adapted to be suitably hinged thereon. On the other vertical margin **13** is mounted a door keeper **14**.

The door **10** includes a main panel **15** having an underturned box-like continuous angled margin or channel-shaped margin or channelled area or margin or reinforcement **16** which is reinforced such as at **17** (Fig. 2) but which margin is otherwise open along its inner side

for receipt of the latch hereafter described in detail. The vertical margin **16** is of such arrangement as to be capable of confronting overlying engagement with the door margin **13**.

Welded on the inner side of the door panel **15** is a padlock staple cover **18** which is adapted to project through an opening in the door to the outer side of the door.

Disposed on the inner side of the door over the staple cover **18** and adjacent the vertical door margin **13** is my novel latch assembly **19** embodying features of this invention. My latch assembly includes as components a U-shaped member or second latch plate **20** and a box locker door latch or first latch plate **21**.

The box locker door latch **21** includes a main flange portion **22** provided with two slots **23** and **24** and is adapted to lie in co-planar confronting relation to the door panel **15**. The flange **22** has at one end thereof vertically spaced stops **25** and **26** and intermediately located tabs **27** and **28**. The latch flange **22** extends laterally into the channelled margin **16** (Figure 3). Connected at the other end of the flange **22** is a U-shaped portion or channelled portion or angled portion or channelled area or latch portion **29** including stepped flanges **30**, **31** and **32** which portion **16** is housed in the channelled margin. Flange **31** is slotted at **33** to permit the door keeper **14** to extend therethrough and engage with edge **34** in locked engagement.

It will be noted that the flange **32** is offset relative to the outer co-planar guide edge **35** of flange **32**. In assembly, the guide edge **35** is adapted to slide up and down against the wall of the door margin **16**.

Cooperable to hold the latch **19** on the door, the U-shaped member **20** includes a staple **36** formed on one side of same and a latch lift **37** formed on the other side of same. On opposite vertical ends thereof is a pair of slots **38** and **39** capable of receiving in assembly tabs **27** and **28**.

In assembly the latch **20** is aligned with the door margin **16**; the slot **23** being aligned with door slot **40**; and slot **24** being aligned with the staple cover **18**. Latch lift **37** is then inserted through aligned openings **23—40** and staple **36** through opening **24** into the staple cover **18**. Tabs **27** and **28** are then turned to interlock the latch **19**, member **20** and panel **16** in assembled relation.

It will be appreciated that by virtue of the length of slot **40** and the size of staple cover **18** that limited movement is possible in order to engage and disengage the door keeper **14** with the edge **34** of latch **19**.

To effect locked engagement between the locker cabinet **9** and door **10** two means have been provided. One manner is to insert a padlock (not shown) through the aligned openings **41** and **42** of the staple cover **18** and staple **36**. The other manner is to turn the key of a lock **43** so that a bar **44** is actuated to engage topside of the stop **26**.

The lock **43** extends through from the outer side of the panel **15** and is carried on the main panel **15**, a reinforcing guide **45** and a brace **46** which are bolted together at **47** and **48**. In other words, the panel **15**, guide **45** and brace are in stacked contiguous relation. Carried on the guide **45** are a pair of vertically spaced abutments or stops **49** and **50** which are laterally offset from the guide. The stops serve to provide an additional backup for the latch **21** holding flange **22** against the panel **15** in loose engagement to permit the flange to move vertically. In addition, shoulders at the junction of the offset stops **49** and **50** with the guide **45** serve to additionally position and transversely support the latch. Still further, the stops **49** and **50** serve to circumscribe vertical movement of the latch **19**.

It will be appreciated that as the bar **44** engages against

the top side of the stop 26 the latch is maintained in locked position against the abutment stop 50.

The present foot locker door and latch assembly is of a durable and reinforced construction, and yet is relatively economical to manufacture because of the small number of components. The reinforcing U-shaped combination latch lift and staple member along with my novel latch permit easy assembly and efficient operation with a minimum number of components.

The present door construction allows the door to be manufactured for immediate use since if the purchaser decides to have keylocks installed, economical stop means have been already provided to permit ready installation with little or no variation in the door.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. In a locker door for use with a locker having a door opening defined by an outer body margin having a door keeper, a door panel for overlapping the opening and margin and having at least one rearwardly projecting peripheral margin defining substantially a box-like cavity capable of confronting engagement with the body margin, a depending staple cover extending outwardly from the panel, a latch having a portion for movement in said box-like cavity for engagement with the door keeper and having a laterally projecting flange in sliding opposed relation with the door panel, and a U-shaped combination latch lifter and staple member extending outwardly through said latch flange and door panel with the staple extending into staple cover and with the bottom portion of the U-shaped member disposed on the inner side of the door.

2. In a locker door for use with a locker having a door opening defined by an outer body margin having a door keeper, a door panel for overlapping the opening and margin and having at least one rearwardly projecting peripheral margin defining substantially a box-like cavity capable of confronting engagement with the body margin, a depending staple cover extending outwardly from the panel, a latch movable in said box-like cavity for engagement with the door keeper and having a laterally projecting flange in sliding opposed relation with the door panel, and a U-shaped combination latch lifter and staple member extending outwardly through said latch flange and door panel with the staple extending into the staple cover, the bottom portion of said U-shaped member holding the latch flange in firm locked engagement with the door and capable of limited sliding movement to effect latching and unlatching.

3. In a locker door for use with a locker having a door opening defined by an outer body margin having a door keeper, a door panel overlapping the opening and margin and having at least one rearwardly projecting peripheral margin defining substantially a box-like cavity for confronting engagement with the body margin, a depending staple cover extending from the panel, a latch for movement in said box-like cavity for engagement with the door keeper and having a laterally projecting flange in sliding opposed relation with the door panel, a U-shaped combination latch lifter and staple member extending outwardly through said latch flange and door panel with a base portion of the U-shaped member on the inner side of the door and with the staple member extending into the staple cover, said flange provided with a stop, and a key lock accessible for the outer side of the door having means cooperable with said stop to lock same.

4. Latching mechanism for a locker and locker door comprising a first plate including joined main and latch portions adapted to underlie the door, a second plate underlying and carried by said first plate with said first plate adapted to be between said second plate and the door, a latch lift extending from said second plate transversely of said first plate, a stop adapted to be carried by the door to hold said first plate loosely thereagainst, an ear depending from one of said plates closely adjacent said stop, and a key operated lock having a dog swingable to lock out said ear to prevent manipulation of said latch lift.

5. A locker door for a locker having a body defining a body housing and with at least one keeper on the body, a reinforcement extending rearwardly along one of the marginal edges of the door, said reinforcement being disposed opposite the keeper and having a first slot through which the keeper may be telescoped when the door is closed, a first plate including joined main and latch portions with the latch portion being disposed at one end of the main portion, the latch portion being disposed in said reinforcement having a second slot generally in registration with said first slot and with the keeper insertable through said slots in locking engagement with said latch portion, and a second plate fastened to and underlying said first plate with said first plate between said second plate and said door, said second plate having a latch lift extension extended outwardly through slots in said first plate and said door joining said plates to said door and with said extension being movable to disconnect said latch portion from the keeper.

6. The locker door of claim 5 further characterized by a stop disposed in laterally spaced relation to the reinforcement on said door to hold said plates in slidable engagement against said door to prevent cocking of the plates relative to the door and to resist tampering.

7. The locker door of claim 5 further characterized by said latch portion being angular and having a guide for maintaining said latch slot and said reinforcement slot in relative alignment.

8. A locker door for a locker having a body defining a body housing and at least one keeper on the body, a reinforcement extending rearwardly along one of the marginal edges of the door, said reinforcement disposed opposite the keeper and having a first slot through which the keeper may be telescoped when the door is closed, a first plate including joined main and latch portions with the latch portion being disposed at one end of the main portion, the latch portion being disposed in said reinforcement having a second slot generally in registration with said first slot and with the keeper insertable through said slots in locking engagement with said latch portion, a second plate fastened to and underlying said first plate with said first plate between said second plate and said door, said second plate having a latch lift extension extending outwardly through said door and with said extension being movable to disconnect said latch portion from the keeper, a depending ear on the first plate, stop means on one side of said ear, and a key operated lock having a latching dog swingable on an opposite side of said ear to lock out said ear and said latch portion.

9. A locker door for a locker having a body defining a body housing and with at least one keeper on the body, a reinforcement extending rearwardly along one of the marginal edges of the door, said reinforcement disposed opposite the keeper and having a first slot through which the keeper may be telescoped when the door is closed, a first plate including joined main and latch portions with the latched portion being disposed at one end of the main portion, the latch portion being disposed in said reinforcement having a second slot generally in registration with said first slot and with the keeper insertable through said slots in locking engagement with said latch portion, a second plate fastened to and underlying said first plate with said first plate between said second plate and said door, said second plate having a latch lift extension and a slotted staple extension extending outwardly through slots in said first plate and said door to interlock said plates and latch

portion to said door and with said extension being movable to disconnect said latch portion from the keeper, and a slotted staple cover on the outer side of said door with said staple extension movable in said cover with said shift extension.

10. In a locker door structure including a door panel and an underturned hollow door margin with slot structure through the door panel disposed at one side of the door margin, a latching mechanism comprised of a pair of plates with the first of said plates having a latch portion being disposed within the hollow door margin and a laterally extending flange portion lying in a plane generally parallel to the plane of the door for underlying the door, the flange portion having slot structure, the second of said plates underlying and carried by the first of the plates to one side of the latch portion with said first plate lying between the second plate and the door, a latch lift extension and a staple each turned from said second plate and extended through the slot structure in said first plate and said panel in interlocked relation, and fastening structure for maintaining the plates in assembly with the door.

11. The structure of claim 10 further characterized by both said latch portion and said door margin having channelled areas but with the channelled areas opening in different directions with respect to one another.

12. The structure of claim 10 further characterized by said fastening structure comprising a third plate overlapping at least one of the other plates and being fastened to the door panel.

13. The structure of claim 10 further characterized by the fastening structure including tab means on the first plate bearing against said second plate for preventing the first and second plates from coming apart.

14. In a locker door structure including a door panel having slot structure, a latching mechanism comprised of a pair of plates with the first of said plates having a latch portion and a laterally extending flange portion lying in a plane generally parallel to the plane of the door for underlying the door, the second of said plates unlerlying and carried by the first of the plates to one side of the latch portion with said first plate lying between the second plate and the door, a latch lift extension and a staple each turned from said second plate and extending through the slot structure in said first plate and said panel in interlocked relation, and fastening structure on the mechanism for maintaining the plates in assembly upon the door.

15. Latching mechanism for a locker and locker door comprising a first plate including joined main and latch portions with the latch portion being turned from the main portion and with the main portion having slot

structure, a second plate underlying and carried by said first plate with said first plate adapted to be between said second plate and the door, a latch lift extension and a staple each turned from said second plate and extended through the slot structure on said first plate to join the plates together, and said mechanism having fastening structure to maintain the extension and the staple extended through the slot structure.

16. The mechanism of claim 15 further characterized by said latch portion being U-shaped and having a guide to maintain proper alignment between the latch and the door.

17. In a locker door structure including a door panel and a hollow door margin with slot structure through the door panel at one side of the door margin, a latching mechanism comprised of plate structure including a first vertically movable plate and a second vertically movable plate and with the plates and the door panel being stacked in superimposed engaged relation with respect to one another, the plates having means joining them together in assembly, the first plate having a channelled latch portion at one end disposed in the hollow door margin and a relatively flat laterally extending flange portion at an opposite end lying in a plane parallel to the plane of the door and underlying the door, the second vertically movable plate having a latch lift extension turned from said second plate and extended through said slot structure in the door panel, and fastening structure on the latching mechanism maintaining the plate structure in slidable assembly and in abutment with the door panel, said latch lift extension comprising a tab disposed in angular relation to the plates and being vertically movable in said slot structure for moving the first and second plates vertically with said latch lift extension, the plates being disposed on the inside of the door adjacent the hollow door margin and being concealed by the door panel except for the tab.

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